



*Via Certified Mail and Electronic Mail*

June 2, 2010

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**RE: 60-Day Notice of Intent to Sue: Violations of the Endangered Species Act related to the Approval and Use of Chemical Dispersants**

Dear Ms. Jackson and Admiral Papp:

This letter serves as a sixty day notice on behalf of the Center for Biological Diversity of intent to sue the U.S. Environmental Protection Agency (“EPA”) and the U.S. Coast Guard (“Coast Guard”) over violations of Section 7 of the Endangered Species Act (“ESA”)(16 U.S.C. § 1531 *et seq.*) for actions and inactions related to the continued authorization of the use of chemical dispersants, including Corexit, pursuant to the Clean Water Act, 33 C.F.R. § 1321(d) and its implementing regulations. These dispersants are known to or likely to adversely affect multiple threatened and endangered species, including sea turtles, sperm whales, Gulf sturgeon, and others. This letter is provided pursuant to the 60-day notice requirement of the citizen suit provision of the ESA, to the extent such notice is deemed necessary by a court. *See* 16 U.S.C. § 1540(g).

The ongoing BP Deepwater Horizon oil spill disaster in the Gulf has already become the worst oil spill in U.S. history, dwarfing even the 1989 Exxon Valdez disaster in scope and

complexity. The amount of oil spewing into the Gulf of Mexico is unprecedented, as is the extensive use of dispersants to break up the oil. To date, spill responders have applied over 980,000 gallons of dispersants, mostly Corexit 9500A and Corexit 9527A, in an effort to minimize the oil reaching the ocean surface and shore. Approximately 755,000 gallons have been applied to the surface, while about 225,000 gallons have been applied near the source of the leak, nearly a mile below the ocean surface. As wildlife officials have openly acknowledged, the deployment of massive quantities of chemical dispersants, including significant quantities deployed in very deep water, constitutes an uncontrolled experiment on the Gulf of Mexico ecosystem. In her May 24 press conference, EPA Administrator Lisa Jackson noted that the amount of dispersant being used to break up the oil spewed by the Deepwater Horizon was approaching a world record.<sup>1</sup> The effects of using such enormous volumes of these chemicals, or of using them at such depths, have never been tested, much less thoroughly evaluated. However, at least two of the dispersants EPA and the Coast Guard have approved for use, Corexit 9500 and Corexit 9527, have been banned by the United Kingdom due to their adverse effects on the marine environment.

EPA's and the Coast Guard's decision to authorize the use of chemical dispersants without ensuring that the use of such chemicals is not likely to jeopardize the continued existence of threatened and endangered species, or destroy or adversely modify critical habitat, violates the agency's duties under the ESA. The agencies have violated these duties in at least three respects. First, EPA has violated ESA Section 7 by listing Corexit 9500A, 9527A, and other dispersants for use in oil spill response activities as part of the NCP Product Schedule without undertaking consultation and otherwise ensuring that such approval would not result in jeopardy to a species or destruction or adverse modification of critical habitat. Second, EPA and the Coast Guard failed to undertake timely and adequate Section 7 consultation with respect to the use of dispersants authorized by the Region 4 and Region 6 Regional Response Team policies for dispersant use in ocean and coastal waters in response to offshore oil spills. Third, EPA and the Coast Guard have failed to ensure that their current decision to allow the unprecedented and unstudied use of huge volumes of dispersants, with significant amount deployed at great depth, to respond to the BP Deepwater Horizon disaster is not likely to jeopardize listed species or adversely modify their critical habitat.

EPA and the Coast Guard must examine or re-examine each of these agency actions pursuant to its obligations under Section 7 of the ESA in order comply with its duty to ensure against harm to species and their critical habitat. The reinitiation of Section 7 consultation and completion of a thorough new biological opinion are necessary to inform the ongoing spill response activities, however long they may endure, ensure that future response activities do not pose an unnecessary threat to listed species and their habitats, and foster improved planning and response in the future.

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<sup>1</sup> Statement by EPA Administrator Lisa P. Jackson from Press Conference on Dispersant Use in the Gulf of Mexico with U.S. Coast Guard Rear Admiral Landry (May 24, 2010).

## I. LEGAL AND FACTUAL BACKGROUND

### A. Oil Spill Response and Dispersant Approval under the Federal Water Pollution Control Act (“Clean Water Act”) and the National Contingency Plan

The federal government’s oil spill response duties and procedures are set forth in Section 311 of the federal Clean Water Act. In the event of an oil spill, this provision requires the President to take actions necessary to ensure effective and immediate removal of the discharged oil, as well as mitigation or prevention of a substantial risk of discharge of oil into the waters of the United States.<sup>2</sup> The President’s duties with respect to responding to oil spills have been delegated to EPA and the Coast Guard, among others.<sup>3</sup> Removal activities must be conducted pursuant to a detailed National Contingency Plan (“NCP”) for the removal of oil and hazardous substances.<sup>4</sup> Among other requirements, the NCP must contain:

A schedule, prepared in cooperation with the States, identifying--  
(i) dispersants, other chemicals, and other spill mitigating devices and substances, if any, that may be used in carrying out the Plan,  
(ii) the waters in which such dispersants, other chemicals, and other spill mitigating devices and substances may be used, and  
(iii) the quantities of such dispersant, other chemicals, or other spill mitigating device or substance which can be used safely in such waters, which schedule shall provide in the case of any dispersant, chemical, spill mitigating device or substance, or waters not specifically identified in such schedule that the President, or his delegate, may, on a case-by-case basis, identify the dispersants, other chemicals, and other spill mitigating devices and substances which may be used, the waters in which they may be used, and the quantities which can be used safely in such waters.<sup>5</sup>

This schedule is known as the NCP Product Schedule.<sup>6</sup>

EPA’s regulations implementing Section 311(d) set forth the process for maintaining the NCP Product Schedule as well as adding products to it.<sup>7</sup> These regulations require that a dispersant product attain a 45% or greater effectiveness value to be added to the schedule. Results of toxicity testing factor into the product’s effectiveness value.<sup>8</sup> EPA retains the right to conduct its own testing to verify industry results and to weigh EPA testing results in determining whether the product meets listing criteria.<sup>9</sup> The regulations specify that “[t]he listing of a

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<sup>2</sup> 33 C.F.R. § 1321(c)-(d).

<sup>3</sup> Exec. Order 12777 (Oct. 18, 1991).

<sup>4</sup> 33 C.F.R. § 1321(c)-(d).

<sup>5</sup> 33 C.F.R. § 1321(d)(2)(G).

<sup>6</sup> 40 C.F.R. 300.905(a).

<sup>7</sup> *Id.* at 300.905(a) and 300.920.

<sup>8</sup> 40 C.F.R. 300.915(a)(8), 300.920(a).

<sup>9</sup> *Id.* at 300.920(a).

product on the NCP Product Schedule does not constitute approval of the product” for use on an oil spill.<sup>10</sup> However, EPA’s listing of a given product on the NCP Product Schedule is a prerequisite that makes the product lawfully available for use in future oil response activities.

Regional response teams (“RRTs”) and Area Committees, both of which include representatives from and are overseen by EPA and the Coast Guard, may authorize the use of a given dispersant listed on the NCP Product Schedule as part of their planning activities and include these as part of their preauthorization plans.<sup>11</sup> Preauthorization plans may address factors such as the type of oil likely to be spilled, likely source of spill, and environmentally sensitive areas. The plans must be approved by EPA representatives, among others.<sup>12</sup> For situations that are not addressed by the preauthorization plan, the federal on-scene coordinator (“FOSC”) may authorize the use of dispersants listed on the NCP Product Schedule with the concurrence of EPA and other representatives of the RRT.<sup>13</sup> Generally, the Coast Guard acts as the lead agency with respect to responding to offshore oil spills and the FOSC is a representative of the Coast Guard.<sup>14</sup>

## **1. Listing of Dispersants on NCP Product Schedule**

EPA’s NCP Product Schedule currently lists 14 dispersants, 4 of which belong to the Corexit brand.<sup>15</sup> EPA most recently updated its NCP Product Schedule on May 11, 2010, 21 days after the Deepwater Horizon explosion. The only change in listed dispersants was the re-listing of Corexit 7664 under the name Corexit EC7664. The two principal dispersants being employed by BP – despite significant questions regarding their safety – have been listed and remain listed today. Corexit 9500 was listed under Subpart J on April 13, 1994; it was re-listed December 18, 1995 under the name Corexit EC9500A (commonly referred to as “Corexit 9500A”). Corexit 9527 was originally listed on March 10, 1978 and was re-listed December 18, 1995. This dispersant is now listed under the name Corexit EC9527A (commonly referred to as “Corexit 9527A”).<sup>16</sup> EPA’s NCP Product Schedule Guide indicates that Corexit 9500A and 9527A are most appropriate for surface application and have average effectiveness rates around 50%.<sup>17</sup>

The recommended application volume for Corexit 9500A and 9527A is 2 to 10 gallons per acre.<sup>18</sup> Thus far, BP has applied more 755,000 gallons of these dispersants to the surface of the Gulf of Mexico, and more than 225,000 gallons to the deep waters near the source of the leak – nearly a mile below the depth at which the product is generally supposed to be applied.

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<sup>10</sup> *Id.* at 300.920(e).

<sup>11</sup> *Id.* at 300.910(a).

<sup>12</sup> *Id.*

<sup>13</sup> *Id.* at 300.910(b).

<sup>14</sup> *Id.* at 300.5.

<sup>15</sup> EPA, NCP Product Schedule (May 11, 2010).

<sup>16</sup> *Id.*

<sup>17</sup> EPA, Guide to Using the NCP Product Schedule Notebook (May 11, 2010) at 2-3 and 12-13.

<sup>18</sup> *Id.*

## **2. EPA and Coast Guard Authorization of Dispersant Use through Regional Response Team Dispersant Use Policies and Guidelines**

EPA and the Coast Guard have also approved policies and guidelines at the regional level for the use of dispersants in response to offshore oil spills. EPA Region 4, which includes the states of Mississippi, Alabama, and Florida, and Region 6, which includes Louisiana and Texas, have both approved such policies and guidelines to implement Subpart J of the National Oil and Hazardous Substances Contingency Plan (“NCP”). These approvals are federal agency actions subject to ESA Section 7 consultation.

### Region 4

EPA and the Coast Guard, as co-chairs of the Region 4 RRT, approved the Regional Response Team Oil Spill Dispersant Use Policy (“Region 4 Policy”) in 1996. The Region 4 Policy “preauthorizes limited use of dispersants by the pre-designated United States Coast Guard (USCG) On-Scene Coordinator (OSC) on oil discharges impacting Federal waters and other specifically designated areas...”<sup>19</sup> The Region 4 Policy specified that further consultation would not be required for dispersant use within pre-authorized areas so long as the appropriate RRT agencies are immediately notified and applicable protocols followed. Dispersant use is pre-authorized for “green zone” areas, which are defined as offshore areas at least three miles from shore, outside state jurisdictions, where the water is at least ten meters deep. In “yellow zones,” the Coast Guard must request authorization from the RRT. Yellow zones are waters under state or federal special management, such as wildlife refuges, National Park Service areas, or proposed or designated critical habitats; waters within three miles of shore or within state jurisdiction; or waters less than ten meters deep. EPA and the affected states must concur, and consultation with NMFS and FWS must be completed before use may be authorized.<sup>20</sup> Dispersant use is prohibited in “red zones” unless necessary to prevent or mitigate risk to human health or safety. No red zones have been designated.<sup>21</sup>

The Region 4 RRT, including EPA and the Coast Guard, conducted biological assessments (“BAs”) of the effects of the Region 4 Policy on species under the jurisdiction of NMFS and FWS. Notably, the assumptions made in the BAs regarding the amounts of dispersants that would be applied, the depth at which they would be applied, and the duration of wildlife and ecosystem exposure are nothing like the situation occurring in the Gulf right now. The BAs assumed that dispersants would largely be applied at the surface of the water, in moderate amounts, early in the spill response effort.<sup>22</sup> For example, the BAs assumed that food chain effects from prey contamination were unlikely due to “low concentrations and short duration of exposure to dispersed oil.”<sup>23</sup> The BAs also opined that dispersants would not likely

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<sup>19</sup> Biological Assessment of Effects on Listed Species of Region IV Regional Response Team Oil Spill Dispersant Use Policy (NMFS & FWS) at 33 & 72.

<sup>20</sup> *Id.* at 34 & 73.

<sup>21</sup> *Id.* at 34-35 & 73.

<sup>22</sup> *See, e.g., id.* at 35, 39-40, 83-84.

<sup>23</sup> *Id.* at 40; *see also id.* at 84.

cause significant additional harm to birds or fur-bearing mammals, despite destroying their ability to insulate themselves or repel water, because “[w]ithin the normal range of operating dosages, biological effects are due to the dispersed oil, not the dispersant.”<sup>24</sup> The BAs acknowledged that sea turtles could experience higher exposure to oil and dispersants in the water column following dispersant application, but simply assumed that “exposure will be short-term and concentrations low” due to rapid dilution.<sup>25</sup>

Based on these assumptions – and scant information regarding dispersant effects in general, the BAs opined that dispersant use “under appropriate conditions” was “not likely to adversely affect listed species beyond the potential effects of the spilled oil or add to the cumulative environmental stresses currently acting on the species.”<sup>26</sup> The document also specified that “[c]onsultation will be reinitiated if additional information not previously considered becomes available indicating adverse effects to listed species or critical habitat from the identified action.”<sup>27</sup>

### Region 6

EPA Region 6 re-approved its Dispersant Pre-Approval Guidelines and Checklist (“Region 6 Guidelines”) on January 24, 2001.<sup>28</sup> The Region 6 Guidelines provide pre-approval authority to the FOOSC for dispersant use in the U.S. Exclusive Economic Zone off the Texas and Louisiana coasts. Under the Guidelines, “[t]he only requirement for dispersant product selection is that the dispersant must be included on the NCP Product Schedule and considered appropriate by the FOOSC for existing environmental and physical conditions.<sup>29</sup> The guidelines clearly contemplate surface application of dispersants, setting forth pre-approval and criteria for aerial spraying and surface boat spray systems.<sup>30</sup> While “alternative platforms” may be considered, none are specified or discussed.

The “Bioassessment of the Potential Impacts Resulting from Dispersant Use in Offshore Waters in the Gulf of Mexico” (“Region 6 BA”) likewise bases its findings on the assumption that dispersants will be applied to the surface of the ocean at “recommended” application rates.<sup>31</sup> The Region 6 BA bases its evaluation of species’ risk from dispersant effects largely on the whether species occurs at the surface and/or in offshore waters. For example, it assumes that sea turtles, sperm whales, and red snapper are only at “medium” risk of being directly affected by dispersant use because the species were thought to have low numbers occurring offshore (sea

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<sup>24</sup> *Id.* at 39, 83.

<sup>25</sup> *Id.*

<sup>26</sup> *Id.* at 86.

<sup>27</sup> *Id.*

<sup>28</sup> Federal Region VI Regional Response Team, FOOSC Dispersant Pre-Approval Guidelines and Checklist (Jan. 24, 2001) (“Region 6 Guidelines”).

<sup>29</sup> Region 6 Guidelines at 1.

<sup>30</sup> *Id.* at 2-3, 14.

<sup>31</sup> *Id.* at App. D, pp. Appendix-5 to Appendix-9; *see also* Minerals Management Service, Final Supplemental Environmental Impact Statement: Gulf of Mexico Oil and Gas Lease Sales: 2009-2012 (Sept. 2008) at 3-26 (assuming a 4,600 barrels as the most likely size of an offshore oil spill).

turtles) or preferred deep water habitat (sperm whales and red snapper).<sup>32</sup> The Region 6 BA found that important prey species, such as Gulf menhaden and blue crabs, had a high risk of negative impacts from dispersant use, since these organisms occur in the water column in offshore waters.<sup>33</sup> The Region 6 BA did not discuss particular impacts to sea turtles or marine mammals, relying instead on a 1994 statement by NMFS, made in response to a request for ESA consultation, that “the species under our purview are not likely to be adversely affected by the use of chemical countermeasures in response to an oil spill.”<sup>34</sup> The Region 6 BA also discounted the possibility that dispersants could adversely affect birds.<sup>35</sup>

### **3. EPA and Coast Guard Authorization of Dispersant Use in Response to the BP Deepwater Horizon Oil Spill in the Gulf of Mexico and Species Affected**

As demonstrated above, the use of dispersants in response to the BP Deepwater Horizon disaster is completely different in methodology, scale, and scope of impacts than anything EPA or the Coast Guard has considered or authorized in the past. BP has applied dispersants that are known to be toxic to the marine environment in a wholly unprecedented, unanalyzed, and arguably unauthorized manner. Yet these agencies have continued to allow the use of enormous amounts of Corexit and other dispersants on the surface and deep waters of the Gulf of Mexico without ensuring that this massive ecological experiment will not jeopardize protected species or adversely affect their critical habitat.

Early in the response effort, EPA and the Coast Guard simply deferred to BP’s choice of dispersants and allowed the company to apply virtually unlimited amounts. Within 3 weeks of the start of the Deepwater Horizon disaster, EPA issued its updated NCP Product Schedule and accompanying guide, both of which retained Corexit 9500A and 9527A as permissible dispersants and neither of which addressed subsurface use of the chemicals, even though such deployment was already well way. On May 10, EPA issued a directive to BP regarding its subsurface use of dispersants. The directive essentially authorized a large-scale experiment by BP, under which BP was first required to determine that subsurface dispersant application was chemically breaking up the oil and then to sample and delineate the dispersed plume.<sup>36</sup> The directive set forth minimal criteria for subsurface dispersant application, requiring the Regional Response Team to be consulted if dissolved oxygen near the plume falls below 2 mg/L or toxicity tests reveal “excessive exertion of a toxicity response.”<sup>37</sup>

Testing soon revealed that use of the Corexit dispersants has killed up to 25% of all organisms living 500 feet below the surface in areas where the dispersant was used.<sup>38</sup> After

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<sup>32</sup> *Id.* at Appendix-7.

<sup>33</sup> *Id.* at Appendix-8.

<sup>34</sup> *Id.* at Appendix-13.

<sup>35</sup> *Id.* at Appendix-13 to Appendix-14.

<sup>36</sup> EPA, Dispersant Monitoring and Assessment Directive for Subsurface Dispersant Application (May 10, 2010).

<sup>37</sup> *Id.* at 3.

<sup>38</sup> Farren, L. and B. Blackburn, May 21, 2010, “EPA May Not Force BP to Change Dispersants,” ABC World News, avail. at <http://abcnews.go.com/WN/epa-bp-dispersants/story?id=10711367>.

significant outcry by the public and scientific experts regarding the toxicity of Corexit products and the utterly untested manner of their use, EPA issued an addendum to its directive wherein the agency gave BP 24 hours to identify dispersants on the NCP Product Schedule that were more effective at dispersal and less toxic than BP's favored Corexit products. The addendum further provided that

[w]ithin 72 hours after submitting the list of alternatives, and after receiving EPA approval, BP shall immediately use only the approved alternative dispersant. Should BP not be able to identify alternative dispersant products, BP shall provide the FOSC and EPA RRT CO-Chair a detailed description of the products investigated, the reason the products did not meet the standards described above.<sup>39</sup>

The next day, BP responded to EPA, refusing to use alternative dispersants on the grounds that the alternative products either posed environmental risks or were not available in sufficient quantities. EPA expressed disappointment in BP's response and initiated its own toxicity testing of alternative products.<sup>40</sup> However, EPA permitted BP to keep using Corexit 9500A and 9527A.

Finally, on May 26, EPA issued a third addendum to its directive to BP, this time directing BP to cease surface application of dispersants in order to reduce overall dispersant use by as much as 75%.<sup>41</sup> However, EPA expressly allowed the continued use of subsurface – the method with the least testing and most uncertain effects, and limited the quantity applied in a single day to 15,000 gallons.<sup>42</sup> As of June 1, EPA and the Coast Guard have permitted the application of over 755,000 gallons of dispersants to the surface of the Gulf and over 225,000 gallons deep below the surface.

## **B. The Endangered Species Act**

### **1. Procedural and Substantive Duties under the ESA**

The Endangered Species Act, 16 U.S.C. §§ 1531-1544, (“ESA”) was enacted, in part, to provide a “means whereby the ecosystems upon which endangered species and threatened species depend may be conserved...[and] a program for the conservation of such endangered species and threatened species...”<sup>43</sup>

The ESA vests primary responsibility for administering and enforcing the statute with the Secretaries of Commerce and Interior. The Secretaries of Commerce and Interior have delegated this responsibility to the National Marine Fisheries Service (“NMFS”) and the U.S. Fish and

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<sup>39</sup> EPA, Dispersant Monitoring and Assessment Directive – Addendum 2 (May 20, 2010).

<sup>40</sup> Statement by EPA Administrator Lisa P. Jackson from Press Conference on Dispersant Use in the Gulf of Mexico with U.S. Coast Guard Rear Admiral Landry (May 24, 2010).

<sup>41</sup> EPA, Dispersant Monitoring and Assessment Directive – Addendum 3 (May 26, 2010).

<sup>42</sup> *Id.*

<sup>43</sup> 16 U.S.C. § 1531(b).



Wildlife Service (“FWS”) respectively.<sup>44</sup> NMFS has responsibility for the sperm whale and other listed whale species, Gulf sturgeon, smalltooth sawfish, and listed coral species. FWS has responsibility for the piping plover, wood stork, and other listed bird species, as well as terrestrial and freshwater species. NMFS and FWS share responsibility for the five listed sea turtle species that occur in the Gulf: Kemp’s ridley, loggerhead, hawksbill, leatherback, and green sea turtles.

Section 2(c) of the ESA establishes that it is “...the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act.”<sup>45</sup> The ESA defines “conservation” to mean “...the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary.”<sup>46</sup> Similarly, Section 7(a)(1) of the ESA directs that the Secretary review “...other programs administered by him and utilize such programs in furtherance of the purposes of the Act.”<sup>47</sup>

In order to fulfill the substantive purposes of the ESA, federal agencies are required to engage in Section 7 consultation with FWS or NMFS, depending on the species at issue, to “insure that any action authorized, funded, or carried out by such agency...is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the adverse modification of habitat of such species... determined...to be critical...”<sup>48</sup>

Section 7 consultation is required for “any action [that] may affect listed species or critical habitat.”<sup>49</sup> Agency “action” is defined in the ESA’s implementing regulations to include “(b) the promulgation of regulations; (c) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; or (d) actions directly or indirectly causing modifications to the land, water, or air.”<sup>50</sup>

At the completion of consultation, FWS or NMFS will issue a biological opinion that determines if the agency action is likely to jeopardize the species. If so, the opinion may specify reasonable and prudent alternatives that will avoid jeopardy and allow the agency to proceed with the action.<sup>51</sup> FWS or NMFS may also “suggest modifications” to the action during the course of consultation to “avoid the likelihood of adverse effects” to the listed species even when not necessary to avoid jeopardy.<sup>52</sup>

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<sup>44</sup> 50 C.F.R. §402.01(b).

<sup>45</sup> 16 U.S.C. § 1531(c)(1).

<sup>46</sup> 16 U.S.C. § 1532(3).

<sup>47</sup> 16 U.S.C. § 1536(a)(1).

<sup>48</sup> 16 U.S.C. § 1536(a)(2) (Section 7 consultation).

<sup>49</sup> 50 C.F.R. § 402.14.

<sup>50</sup> 50 C.F.R. § 402.02.

<sup>51</sup> 16 U.S.C. § 1536(b).

<sup>52</sup> 50 C.F.R. § 402.13.

An agency's duty to avoid jeopardy is continuing, and "where discretionary Federal involvement or control over the action has been retained or is authorized by law," the agency must in certain circumstances reinitiate formal consultation:

- (a) If the amount or extent of taking specified in the incidental take statement is exceeded;
- (b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- (c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or
- (d) If a new species is listed or critical habitat designated that may be affected by the identified action.<sup>53</sup>

Section 7(d) of the ESA, 16 U.S.C. § 1536(d), provides that once a federal agency initiates consultation on an action under the ESA, the agency, as well as any applicant for a federal permit, "shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section." The purpose of Section 7(d) is to maintain the environmental status quo pending the completion of consultation. Section 7(d) prohibitions remain in effect throughout the consultation period and until the federal agency has satisfied its obligations under Section 7(a)(2) that the action will not result in jeopardy to the species or adverse modification of its critical habitat.

EPA's listing of dispersants on the NCP Product Schedule under the Clean Water Act is a federal agency action subject to the ESA Section 7 consultation requirement. Clean Water Act Section 311(d) and its implementing regulations set forth the process and requirement by which EPA selects dispersants for that may be used in oil response activities. Clean Water Act Section 311(d)(2)(G) authorizes EPA to select dispersants for the NCP Product Schedule and to subscribe the location and manner of their use as well as the quantities in which each dispersant may be used.<sup>54</sup> EPA's regulations further specify that, before being placed on the NCP Product Schedule, a dispersant must be demonstrated to achieve a minimum rate of effectiveness, which includes consideration of the product's toxicity.<sup>55</sup> EPA expressly retains discretion to conduct its own, separate analyses of a dispersant's effectiveness and toxicity, as well as to request further information from the manufacturer, to aid its determination whether to place the dispersant on the NCP Product Schedule.<sup>56</sup>

While the use of a particular dispersant is, in theory, subject to further approval through Regional Response Team plans, RRTs and RRT plans rely heavily on EPA's

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<sup>53</sup> 50 C.F.R. § 402.16.

<sup>54</sup> 33 U.S.C. § 1321(d)(2)(G).

<sup>55</sup> 40 C.F.R. 300.915(a)(7)-(8), 300.920(a).

<sup>56</sup> *Id.* at 300.920(a).

determination via listing on the NCP Product Schedule that the dispersant is appropriate, effective, and safe for use in responding to oil spills. None of the dispersants being used in the Gulf of Mexico or elsewhere could lawfully be used without EPA's first listing the product on the NCP Product Schedule. By establishing that a product's use is permissible and establishing guidelines for its use, EPA has undertaken an agency action subject to ESA Section 7 obligations. Yet EPA has failed entirely to comply with those obligations.

## **2. Consultation Duties and Requirements during Oil Spill Response Actions**

The procedures by which EPA and the Coast Guard are to consult with expert wildlife agencies regarding oil spill effects are outlined in the 2001 Interagency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities Under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the ESA ("MOA").<sup>57</sup> The MOA authorizes emergency ESA consultations pursuant to 40 C.F.R. § 402.05 for spill response activities.<sup>58</sup> When listed species or critical habitat are or could be present in the area affected by the spill, the Federal On Scene Coordinator ("FOSC") designated under the NCP must initiate emergency ESA consultation by contacting the FWS and NMFS ("Services"). The NOAA Regional Response Coordinator ("RRC") and Scientific Support Coordinator ("SSC") are tasked with coordinating species expertise, which may involve participation by Service staff from local field offices as well as Service participation in the FOSC Incident Command System.<sup>59</sup>

During the course of emergency consultation, the Services must provide and collect certain information. The Services must provide the FOSC with species expertise as well as timely recommendations for avoiding or minimizing impacts to listed species and their critical habitat. The Services must also advise the FOSC if incidental take is anticipated but no means of reducing or avoiding such take are apparent. Any such incidental take must be documented.<sup>60</sup> The Services must also notify the FOSC of circumstances such as seasonal migration or other natural occurrences affecting the resources. In turn, the FOSC must keep the Services apprised of changes in response actions due weather, extended operations, or other factors.<sup>61</sup>

In addition, the FOSC and the Services must maintain a record of written and oral communications during the spill response and specific information required to initiate formal consultation in cases where listed species or critical habitat have been adversely affected by response activities.<sup>62</sup> Information required for formal consultation includes, among other things,

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<sup>57</sup> U.S. Coast Guard, U.S. EPA, FWS, NMFS, National Ocean Service, and Department of the Interior, Interagency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities Under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act (2001) ("MOA").

<sup>58</sup> *Id.* at 7; *see also* 50 C.F.R. 402.05.

<sup>59</sup> MOA at 7.

<sup>60</sup> *Id.* at 8.

<sup>61</sup> *Id.*

<sup>62</sup> *Id.*

a description of the oil spill response, “evaluation of emergency response actions and their impacts on listed species and their habitats, including documentation of how the Services’ recommendations were implemented, and the results of implementation in minimizing take.”<sup>63</sup> All such information should be collected by the time the emergency response actions are complete.<sup>64</sup>

When response actions are complete and have adversely affected a listed species or critical habitat, formal Section 7 consultation must be initiated. Informal emergency consultation must remain active until the response action is complete and the case is closed in accordance with 40 C.F.R. 300.320(b).<sup>65</sup>

## **D. Impacts of Dispersants on Listed Species**

### **1. Endangered and Threatened Species in the Gulf of Mexico and Florida**

The Gulf of Mexico is home to numerous threatened and endangered species of marine mammals, sea turtles, seabirds, and fish. Endangered whales in the Gulf include sperm whale (*Physeter macrocephalus*), blue whale (*Balaenoptera musculus*), fin whale (*B. physalus*), sei whale (*B. borealis*), and humpback whale (*Megaptera novaeangliae*). In addition, the West Indian manatee (*Trichechus manatus*) frequents shallow coastal waters of the Gulf. Five of the world’s seven sea turtles species occur in the Gulf of Mexico; all are protected under the ESA. The Kemp’s ridley (*Lepidochelys kempii*), hawksbill (*Eretmochelys imbricata*), and leatherback (*Dermochelys coriacea*) are listed as endangered. Green sea turtles (*Chelonia mydas*) are listed as endangered in Florida and threatened elsewhere. Loggerheads (*Caretta caretta*) are currently listed as threatened but NMFS and FWS have proposed to change the status of the Northwest Atlantic distinct population segment, which is the one affected by the Deepwater Horizon spill, to endangered.<sup>66</sup> Protected fish species include the Gulf sturgeon (*Acipenser oxyrinchus desotoi*) and smalltooth sawfish (*Pristis pectinata*).

A number of ESA-listed coastal birds may also be affected by dispersants directly or indirectly. These include piping plover (*Charadrius melodus*), whooping crane (*Grus americana*), and wood stork (*Mycteria americana*).

Protected elkhorn (*Acropora palmata*) and staghorn corals (*A. cervicornis*), which occur in the Florida Keys, are also at risk as dispersed oil droplets and dispersants become entrained in the Loop Current and carried through the Florida Strait.

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<sup>63</sup> *Id.* at App. B.

<sup>64</sup> *Id.* at 8.

<sup>65</sup> *Id.* at 9.

<sup>66</sup> 75 Fed. Reg. 12598 (March 16, 2010).

Several of these species, including elkhorn and staghorn coral and smalltooth sawfish, were listed after EPA and the Coast Guard completed and approved the Region 4 Policy and Region 6 Guidelines.<sup>67</sup> In addition, critical habitat was designated for the Gulf sturgeon, smalltooth sawfish, and elkhorn and staghorn coral after these plans were approved.<sup>68</sup> To our knowledge, neither EPA nor the Coast Guard ever reinitiated Section 7 consultation on either of these Policies or Guidelines in response to these new listings and designations. Moreover, to our knowledge EPA did not engage in or complete Section 7 consultation regarding the effects of re-listing Corexit 9500A or 9527A or any other dispersant when it updated the NCP Product Schedule in May 2010.

## **2. Likely Effects of Dispersants on Wildlife and Habitat**

Dispersants and dispersed oil have been shown to have significant negative impacts on many forms of marine life, including plankton, fish, corals, and birds. Dispersants release toxic break-down products from oil that, alone or in combination with oil droplets and dispersant chemicals, can make dispersed oil more harmful to marine life than untreated oil. Both the short-term and long-term impacts of dispersants on marine life have not been adequately tested. As acknowledged by the EPA, the “long term effects [of dispersants] on aquatic life are unknown.”

Species in the Gulf can be affected by dispersants through a number of pathways. For example, humpback, fin, blue, and sei whales feed by skimming plankton, small fish, and squid from the surface. This feeding mechanism puts them at risk of ingesting dispersants and dispersed oil, as well as food contaminated with these chemicals. In addition, both whales and sea turtles must surface to breathe, and in doing so can breathe in fumes from or ingest dispersants and dispersed oil. According to the Minerals Management Service, dispersant components absorbed by sea turtles can affect their organs and interfere with digestion, excretion, and respiration.<sup>69</sup>

Birds diving into the water to feed may be exposed through direct contact with dispersants and dispersed oil as well as through contaminated prey. Studies have found that dispersed oil, including oil dispersed by Corexit 9527, damages the insulating properties of seabird feathers more than untreated oil, making the birds more susceptible to hypothermia and death.<sup>70</sup> Dispersants and dispersed oil have also been shown to have toxic effects on bird eggs

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<sup>67</sup> 68 Fed. Reg. 15674 (April 1, 2003) (listing smalltooth sawfish under ESA); 71 Fed. Reg. 26852 (May 4, 2006) (listing elkhorn and staghorn coral).

<sup>68</sup> 68 Fed. Reg. 13370 (March 19, 2003) (Gulf sturgeon critical habitat designation); 73 Fed. Reg. 72210 (Nov. 26, 2008) (staghorn and elkhorn coral critical habitat designation); 74 Fed. Reg. 45353 (Sept. 2, 2009) (smalltooth sawfish critical habitat designation).

<sup>69</sup> Minerals Management Service, Final Environmental Impact Statement: Gulf of Mexico Oil and Gas Lease Sales: 2007-2012 (April 2007) (“MMS FEIS”) at 4-282.

<sup>70</sup> Jenssen, B.M., Review Article: Effects of Oil Pollution, Chemically Treated Oil, and Cleaning on the Thermal Balance of Birds, *Environmental Pollution*, 86: 207-15 (1994).

that are similar or worse than from untreated oil.<sup>71</sup> Birds exposed to dispersed oil that return to their nests risk contaminating their eggs, which can lead to the death of those eggs.<sup>72</sup>

Dispersants and dispersed oil in the water column are of at least equal concern, particularly given the unprecedented use of large volumes of dispersants in very deep water. Sea turtles, whales, and fish may all be exposed to dispersants and dispersed oil as they swim and feed in the water column. While the effects of such exposure are not well known for whales and sea turtles, studies have shown that dispersants create a toxic environment for fish by releasing harmful oil break-down products into the water. Dispersed oil has been shown to be toxic to fish at all life stages, from eggs to larval fish to adults, according to numerous laboratory studies that have tested a variety of species.<sup>73</sup>

Should dispersants and dispersed oil reach the Florida Keys, they could wreak havoc on sessile staghorn and elkhorn corals. Dispersants and dispersed oil are particularly toxic to corals, leading scientists to call for a ban on dispersant use near coral reefs. Dispersants and dispersed oil harm the early stages of corals by increasing death rates, reducing settlement on reefs, and altering behavior.<sup>74</sup> A formulation of one of the dispersants being used in the BP spill response, Corexit 9527, has been shown to prevent fertilization of mature eggs and hinder the development of young life stages of reef-building corals.<sup>75</sup>

Moreover, the extensive use of dispersants the EPA has permitted appears to have resulted in the formation of massive deepwater oil plumes extending as far as twenty miles from the leak.<sup>76</sup> Species that frequent and feed in deep water, like the pod of sperm whales residing in this area of the Gulf, could suffer serious adverse impacts from this deep water contamination. Sperm whales are likely being exposed to significant levels of toxins by swimming through these dispersed oil plumes and through feeding on tainted squid and other prey. Furthermore, the effects of these plumes are unlikely to remain isolated to deep water habitats.

Indeed, the enormous volumes of dispersants and dispersed oil now circulating in the Gulf of Mexico have the potential to harm the entire ecosystem from the bottom up. Reports on monitoring data have indicated that the use of the Corexit dispersants killed up to 25% of all

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<sup>71</sup> MMS FEIS at 2-17.

<sup>72</sup> Albers, P.H., Effects of Corexit 9527 on the Hatchability of Mallard Eggs, *Bull. Environm. Contam. Toxicol.*, 23: 661-68 (1979).

<sup>73</sup> Khan, R.A. and J.F. Payne, Influence of a Crude Oil Dispersant, Corexit 9527, and Dispersed Oil on Capelin (*Mallotus villosus*), Atlantic Cod (*Gadus morhua*), Longhorn Sculpin (*Myoxocephalus octodecemspinosus*) and Cunner (*Tautoglabrus adspersus*), *Bull. Environm. Contam. Toxicol.* 75: 50-56 (2005); Anderson, B.S. et al., Preliminary investigation of the effects of dispersed Prudhoe Bay Crude Oil on developing topsmelt embryos, *Atherinops affinis*, *Environmental Pollution*, 157: 1058-61 (2009).

<sup>74</sup> Shafir, S., J. Van Rijn, and B. Rinkevich, Short and Long Term Toxicity of Crude Oil and Oil Dispersants on Two Representative Coral Species, *Environ. Sci. Technol.* 41: 5571-74 (2007).

<sup>75</sup> Venn, A.A., J. Quinn, R. Jones, and A. Bodnar, P-glycoprotein (multi-xenobiotic resistance) and heat shock protein gene expression in the reef coral *Monastraea franksi* in response to environmental toxicants, *Aquatic Toxicology* 93: 188-95 (2009).

<sup>76</sup> Eilperin, J., D. Fahrenthold, and A. MacGillis, "Oil spreading much farther than thought; Obama returns to Gulf Coast," *Washington Post* (May 29, 2010).

organisms living 500 feet below the surface in areas where the dispersant was used.<sup>77</sup> Significant reductions in dissolved oxygen have been reported in the vicinity of underwater dispersed oil plumes. These phenomena are likely to lead to severe reductions in plankton, fish, and other prey species upon which listed species – and their ecosystems – depend. These effects are occurring on top of the ecological crisis of the summertime “dead zone” formation in the Gulf – the annual formation of a large area of oxygen-poor ocean that can barely support life. Species that normally move to deeper water farther from shore in order to escape the dead zone will now be moving into plumes of dispersant and dispersed oil. There can be no doubt that EPA’s and the Coast Guard’s authorization of dispersant use is having and will continue to have significant adverse effects of threatened and endangered species and their critical habitat.

## II. VIOLATIONS OF LAW

### A. Failure to Insure Against Jeopardy to Listed Species

As demonstrated above, EPA and the Coast Guard have violated their procedural and substantive obligations under ESA Section 7 to ensure that their actions are not likely to jeopardize listed species or destroy or adversely modify their critical habitat. First, EPA has listed dispersants on the NCP Product Schedule, including Corexit 9500A and 9527A, that “may affect” listed species without engaging in Section 7 consultation regarding the effects of listing these products for use in oil spill response. None of the dispersants on the NCP Product Schedule, including Corexit 9500A and 9527A, could be lawfully used in the United States absent listing by the EPA. EPA’s listing of dispersants constitutes “agency action” under the ESA, and since such action, at a minimum, “may affect” listed species and their critical habitat, EPA is required by Section 7 of the ESA to ensure through consultation that listing of these dispersants does not jeopardize the continued existence of listed species or destruction or modification of their critical habitat. EPA has utterly failed to comply with this procedural and substantive mandate.<sup>78</sup>

Second, EPA and the Coast Guard, in their role as members and overseers of the RRTs, failed to comply with their Section 7 duties regarding the effects of authorizing dispersant use, including the use of Corexit 9500A and 9527A, through the Region 4 Policy and Region 6 Guidelines. As EPA and the Coast Guard recognized when preparing the BAs that accompanied these plans, the Region 4 Policy and Region 6 Guidelines are agency actions subject to Section 7 consultation. The duty to consult regarding the effects of these authorizations and ensure that they are not likely to result in jeopardy or adverse modification is ongoing. Therefore, even if the “no adverse effect” findings of the outdated BAs were valid at the time they were made,

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<sup>77</sup> Farren, L. and B. Blackburn, May 21, 2010, “EPA May Not Force BP to Change Dispersants,” ABC World News, avail. at <http://abcnews.go.com/WN/epa-bp-dispersants/story?id=10711367>.

<sup>78</sup> Clearly, ESA-listed species in the Gulf of Mexico and Florida face the most immediate consequences of EPA’s failure to comply with its Section 7 consultation duties. However, both the consequences of listing dispersants on the NCP Product Schedule and EPA’s related duties under Section 7 to ensure that these listings do not cause jeopardy or adverse modification extend to all ESA-listed coastal and marine species that occur in areas that may be affected by U.S.-authorized dispersant use.

intervening circumstances render these findings completely inapplicable now. Specifically, the listing of new species, designation of new critical habitat areas, and the unprecedented, never before considered manner and volume of dispersant application currently occurring in the Gulf of Mexico clearly trigger the duty to reinitiate consultation on the Region 4 Policy and Region 6 Guidelines. EPA and the Coast Guard must therefore reinitiate consultation and obtain a new biological opinion in order to comply with their duties to ensure that their actions are not likely to cause jeopardy or adverse modification.

Finally, EPA's and the Coast Guard's case-specific decision to allow the use of dispersants, including Corexit 9500A and 9527A, in a novel and wholly untested manner to disperse oil leaking from the BP Deepwater Horizon rig also violates the agencies' duties under ESA Section 7(a)(2). The agencies have continued to authorize the use of products known to be toxic to the marine environment in a manner never before contemplated in any environmental analysis. The agencies have allowed this to happen despite evidence that excessive dispersant use is causing serious adverse effects, including oxygen depletion and the formation of massive subsea plumes of dispersed oil. These authorizations, like the others, violate EPA's and the Coast Guard's duty to ensure against jeopardy and adverse modification, using the best available scientific information.

In order to correct these violations, EPA must undertake consultation regarding the listing of Corexit 9500A, 9527A, and other dispersants on the NCP Product Schedule, and EPA and the Coast Guard must reinitiate consultation regarding their authorization of dispersant use via the Region 4 Policy and Region 6 Guidelines. Finally the agencies must engage in rigorous monitoring, data collection, and analysis of the effects of dispersants already injected into the Gulf ecosystem. This undertaking must include gathering and releasing to the public sufficient information to demonstrate that jeopardy to listed species or destruction or adverse modification of critical habitat are not likely to occur. Thus far, public statements made by these agencies, as well as the Services, indicate that none of the agencies has such information, much less any confidence that dispersant use is not causing jeopardy or adverse modification.

### **C. Violation of Conservation Obligations**

Section 2(c) of the ESA establishes that it is "...the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act." 16 U.S.C. § 1531(c)(1). The ESA defines "conservation" to mean "...the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary." 16 U.S.C. § 1532(3). Similarly, Section 7(a)(1) of the ESA directs that the Secretary review "...other programs administered by him and utilize such programs in furtherance of the purposes of the Act." 16 U.S.C. § 1536(a)(1). The Supreme Court stated in *TVA v. Hill* that these provisions of the ESA create a "stringent mandatory language [that] reveals an explicit congressional decision to require agencies to afford first priority to the declared national policy of saving endangered species." *TVA v. Hill*, 437 U.S. 153, 183 and 185 (1978). EPA has failed to satisfy this duty by



failing to use its authorities to regulate dispersant use in the Gulf of Mexico so as to avoid the adverse impacts of dispersants on the Gulf of Mexico ecosystem, threatened and endangered species that occur therein, and their critical habitat.

### III. CONCLUSION

In sum, EPA and the Coast Guard have failed to comply with their ESA Section 7 duties to protect listed species and their habitats at virtually every step of the process. EPA's listing of Corexit 9500A, Corexit 9527A, and other dispersants without completing consultation on the impacts of their use on multiple threatened and endangered species constitute ongoing violations of Section 7 of the ESA. Similarly, EPA's and the Coast Guard's authorization of dispersant use via the Region 4 Policy and Region 6 Guidelines, as well as their current, case-specific authorization of dispersant use in response to the BP Deepwater Horizon disaster, constitute plain and continuing violations of ESA Section 7. If EPA and the Coast Guard do not act within 60 days to correct the violations described in this letter, the Center will pursue litigation against your agencies in Federal Court and seek declaratory and injunctive relief. An appropriate remedy that would prevent litigation would be for the EPA to initiate formal consultation regarding the effects of the dispersants it has listed and continues to list on the NCP Product Schedule on threatened and endangered species, particularly in the Gulf of Mexico, and for EPA and the Coast Guard to reinstate formal consultation under ESA Section 7 regarding the effects of these dispersants on threatened and endangered species, particularly in the Gulf of Mexico, including analyzing the effects of using large quantities of the dispersants and deploying the dispersants at significant depths below the surface.

If you have any questions, wish to meet to discuss this matter, or feel this notice is in error, please contact me at 415-436-9682 x306. Thank you for your concern.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Treece', with a long horizontal flourish extending to the right.

Andrea A. Treece  
Senior Attorney, Oceans Program